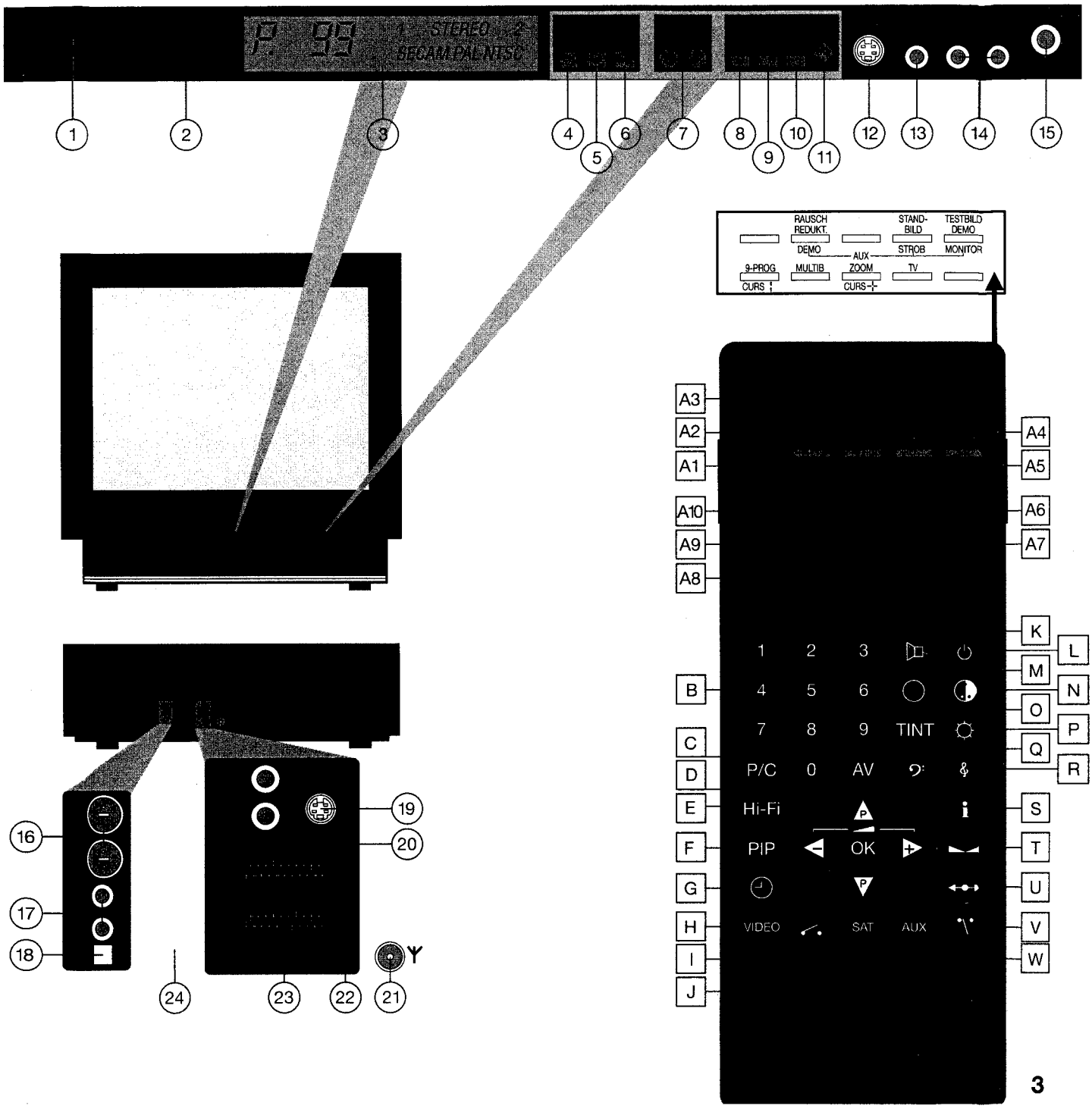
TV COLOR TELEVISION

M 70–100 IDTV

GRUNDIG


STEREO
SECAM PAL NTSC
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2
3
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15
RAUSCH REDUKT.
DEMO
AUX
STAND-BILD
STROB
TESTBILD DEMO
MONITOR
9-PROG
CURS
MULTIB
ZOOM
CURS
TV
A3
A2
A1
A10
A9
A8
A4
A5
A6
A7
K
L
M
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O
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D
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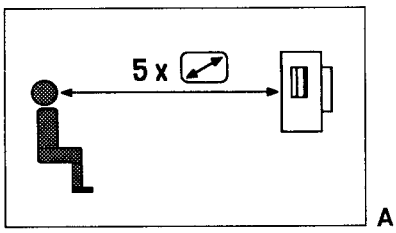
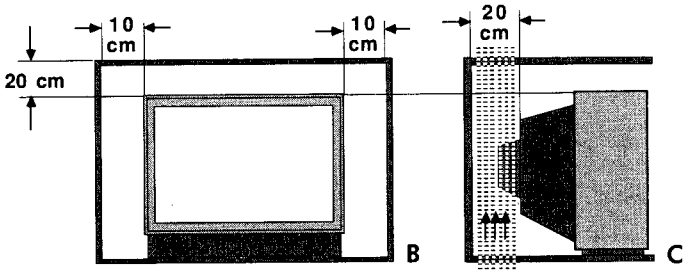
J
S
T
U
V
W
1 2 3
4 5 6
7 8 9 TINT
P/C 0 AV
Hi-Fi
PIP
OK
VIDEO
SAT
AUX
16
17
18
19
20
21
22
23
24

Positioning

Position your TV receiver so that as little stray light as possible falls on the screen.
The ideal viewing distance from the set is five times the screen diagonal (see figure A).
Do not cover the ventilation slots in the rear panel.
The set generates heat which must be able to escape.
A build-up of heat reduces the life of the set and presents a source of danger.
If your set is mounted in a wall unit, the minimum distances shown in the figures B and C must be maintained.

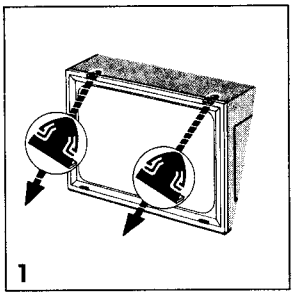


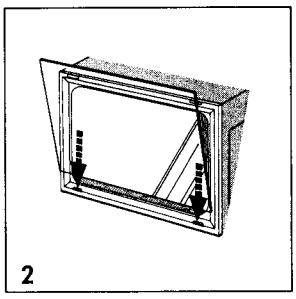
A

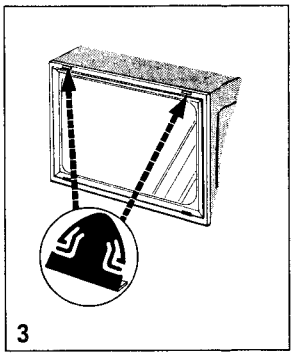


B C

Fitting the contrast filter







Information for the technically interested user

You are in the possession of a GRUNDIG TV receiver of the Monolith model series which is operating according to the latest 100Hz/IDTV technology, a new quality class for picture reproduction.

A 2¼ Megabit digital memory with corresponding 100Hz/IDTV electronics (IDTV = Improved Definition TV) doubles the picture frequency of the currently used 50 frames to 100 frames per second, thus eliminating disturbing edge- and large area flicker.
This particularly flicker-free picture reproduction goes easy on the eyes of the televiewer and ensures relaxing and non-tiring pleasure when watching TV.

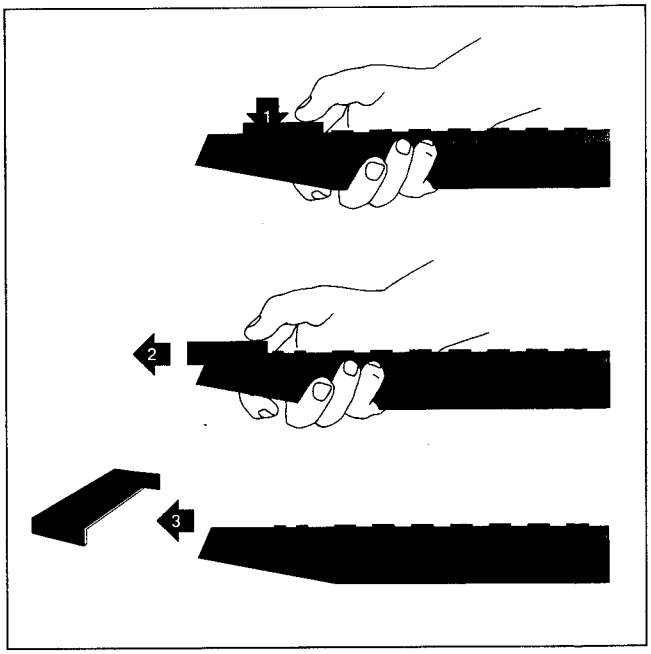
By the application of digital signal processing, the 100Hz/IDTV technology results in a reduction of picture noise (eg: in the case of weak aerial signals) and a reduction of cross-colour disturbance, thus increasing the quality of the television and video picture.

Further useful features of the 100/Hz/IDTV-Monolith are:

TOP-Text	= 32-pages-memory with optimum memory efficiency and essentially reduced access times.
Freeze frame	= Permits to »freeze« any desired scene with the help of the remote control handset.
Multi-PIP	= Indication of 9 small freeze frames (PIPs) or of successively updated PIPs of 9 different programmes.
Still picture in picture (PIP)	= Permits to »freeze« any desired scene as small PIP.
Stroboscope	= Permits to let appear the movements jerkily (Disco-Effect)
ZOOM	= Permits to enlarge any picture detail selected out of the current programme or a freeze frame.

and many other useful functions.

Removing the keyboard cover



The Buttons of the Remote Control Handset

Letters/figures in boxes □ = buttons on the remote control handset

Teletext Operation

A1 Button ..... selects the »GRUNDIG Top-Text« overview page. Returns from each operating mode to the overview page »GRUNDIG Top-Text«

A2 Red button .... to return to the associated overview page

A3 Green button . to proceed to the next page with overflow to the next group.
Memory preselect button

A4 Yellow button . to proceed to the next group with overflow to the next block

A5 Blue button .... to proceed to the next block

A6 Button ..... switches the TV set from TV operation to Teletext operation.
Returns from each operating mode to Teletext operation.

A7 TV button ..... switches back the TV receiver from each operating mode to TV operation.
On TV operation: to let appear/disappear the current programme/subtitles indication

A8 Button ..... Character height: upper picture half larger/bottom picture half larger/normal size.

A9 Button ..... Present mode

A10 Button ..... for reading in all multiple pages and for directly selecting subpages.

..... Buttons for immediate access to basic functions.

TV Operation

B Group of buttons .... Programme selection and switching on the unit from standby.
Direct programme/channel selection.
To input page numbers on Teletext mode.

C Button P/C ..... Programme/channel/special channel selection. On channel mode: station search start with ▲ or ▼

D Group of buttons .... Button ▲: Step-by-step programme selection (1, 2, 3...)
Button ▲: Cursor movement to the top.
Button ▼: Step-by-step programme selection (...3, 2, 1)
Button ▼: Cursor movement to the bottom.
Button **OK**: – To call up the basic settings of the TV set (picture and sound).
– To modify and activate various functions on Teletext mode.
Button ◀: To reduce the volume and the set values on all picture and sound corrections after preselection.
Button ◀: Cursor movement to the left.
Button ▶: To increase the volume and the set values on all picture and sound corrections after preselection.
Button ▶: Cursor movement to the right.

The Buttons of the Remote Control Handset

Letters in boxes □ = buttons on the remote control.

[E] Button HiFi ..... Television sound via hifi system.

[F] Button PIP ..... Still picture in picture.

[G] Button ..... Clock time indication on/off.

[H] Button VIDEO ... Remote control of a video recorder (see operating instructions of recorder).

[I] Button ..... Not used.

[J] Button SAT ..... Remote control of a satellite receiver (see operating instructions of the receiver).

[K] Button ..... Sound ON/OFF (muting)

[L] Button ..... Switching to standby.

Preselect buttons for:

[M] Button ..... Black/white contrast

[N] Button ..... Colour contrast

[O] Button TINT ..... Colour contrast on NTSC reception

[P] Button ..... Brightness

[Q] Button ..... Bass

[R] Button ..... Treble

[T] Button ..... Stereo balance

The selected function can be displayed as a scale on the TV screen (picture/sound options). Use the buttons ◀ and ▶ if you wish to change these values.

[S] Button ..... to call up the »GRUNDIG Info-Center«. Returns from each operating mode to the »GRUNDIG Info-Center« overview page.

[U] Button ..... Stereo expansion/spatial stereo

[V] Button ..... Channel switching on two-channel-sound broadcasts (2/1 ; 1/2). If the stereo quality is poor (noise), it is possible to switch to mono reproduction.

On Teletext mode: to return to the page viewed last.

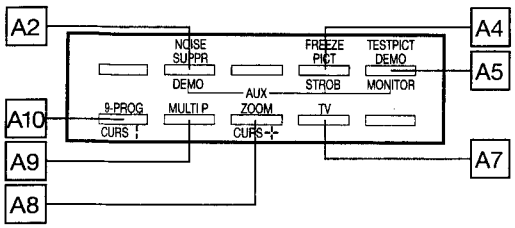
[W] Button AUX ..... Volume (preselection) on headphone operation. Use the buttons ◀ and ▶ to change the volume setting.

MIX, ANSWER and STOP (preselection) on Teletext mode.

The Buttons of the Remote Control Handset – Special Functions

Letters/figures in boxes ☐ = buttons on the remote control.

The buttons for the special function on TV mode (a scheme of the buttons indications is enclosed.)



[A 2] Button NOISE-SUPPR/DEMO ..... Picture improvement by noise reduction.
Press once: off
Press twice: autom.
Press 3 times: constant

[A 4] Button FREEZE-PICT/STROB. ..... PIP »freezing«
To cancel the function, press [A 4] again.
Movements appear jerkily.
Press button [W], then button [A 4].

[A 5] Button TESTPICT DEMO/MONITOR ..... Improved picture quality (in the case of top/bottom black borders).

[A 7] Button TV ..... returns from each operating mode to TV.

[A 8] Button ZOOM/CURS ..... to enlarge and move picture details.

[A 9] Button MULTIP. ..... to display PIPs as time-shifted freeze frames. The PIP in the bottom right corner shows the »current programme«.

[A 10] Button 9-PROG./CURS ..... to display different programmes as PIPs (with station abbreviation) and to advance the PIPs by 9 at a time.

The Buttons and Connections on the TV Set

For readers in a hurry

Figures in circles ○ = buttons and connections on the TV set.

Front Panel

The control buttons and the headphone socket are located behind a flap.
Push open the flap.

① IO = Mains switch; automatically selects programme position 1 when switching on.

② O = Unit in standby mode; indication lit.

③ Display

1 = two-channel-sound broadcast, channel 1 selected.

2 = two-channel-sound broadcast, channel 2 selected.

STEREO = stereo broadcasts.

PAL, SECAM, NTSC } Indication of the reception norm. The unit automatically selects the correct norm.

Indications according to operation, eg:

P 99 = programme position 99 selected

P.99 = programme position 99 selected, AV mode programmed.

C 12 = channel 12 selected

C.28 = channel 28 selected, AV mode possible.

S 18 special channel 18 selected

S.21 = special channel 21 selected, AV mode possible.

A 1 = video operation via Euro-AV socket ㉓

A 2 = camera recorder operation via Euro-AV socket ㉒

A 3 = S-VHS video recorder or S-VHS camera recorder operation via S-VIDEO socket (on rear panel).

A 4 = video recorder or camera recorder operation (on front panel).

A 5 = S-VHS video- or S-VHS camera recorder operation via S-VIDEO socket.

Preselect buttons ④ ⑤ ⑥ ⑧ ⑨ ⑩

First press the corresponding button to determine which setting is to be modified. Then modify the set value with the setting buttons ⑦

④ ◢ = Volume (scale displayed on the screen)

⑤ **N** = Norm code

⑥ ⊖ = Selection of programme positions for external units.

⑦ [− +] = Setting buttons for modifying the set values (+ more/− less).

⑧ P/C = Programme/channel/special channel selection.

⑨ →• = Station search

⑩ F = Fine tuning of picture sharpness.

⑪ M (Memory) = Button for saving the values set with buttons ⑦

⑫ S-VIDEO socket = Connection (picture) for S-VHS video- or S-VHS camera recorder. The sound is separately fed via the sockets ⑭.

⑬ Cinch socket = Video (picture) input

⑭ Cinch-sockets = Connections for audio(sound) input on VHS and S-VHS
R = input, RH channel
L = input, LH channel (for mono).

⑮ ∩ = Headphone socket, 6.3 mm ø

The Buttons and Connections on the TV Set

Figures in circles ○ = buttons and connections on the TV set.

For readers in a hurry

Rear Panel

⑯ Loudspeaker sockets = Connection for extension loudspeakers. (DIN 41 529)

⑰ Cinch sockets = Connections for a hifi system.
R = output, RH channel
L = output, LH channel

⑱ Loudspeaker selector = for operation with extension loudspeakers.
Broad-band-system or bass speaker.

⑲ S-VIDEO socket = Connection (picture) for S-VHS video- or S-VHS camera recorder. The sound is separately fed via the sockets ㉑.

⑳ Cinch sockets = Connections for S-VHS audio(sound) input
R = input, RH channel
L = input, LH channel.

㉑ Y = Aerial socket 75 Ω, coaxial, DIN 45 325 IEC 169-2

㉒ EURO-AV-socket (blue) = Standard connection for video unit.

㉓ EURO-AV socket (black) = Universal connection, DIN EN 50 049,
eg: for non-standard connection of a video unit with RGB output.

Operation with the Remote Control Handset

The remote control handset,

the central command unit for your TV set. It permits to carry out all command functions and many basic settings.
For Teletext operation please push up the cover concealing the keypad.

- Insert the enclosed battery. Observe the polarity marks on the bottom of the compartment! Close cover.

– Should your TV set no longer correctly respond to the commands from the remote control handset, the battery is probably exhausted.
Replace exhausted batteries immediately.
No responsibility is taken for damage caused by a leaking battery.

⚠ Protect the environment!
Hand over old batteries to a public collecting point.

Station programming with the remote control handset

Station programming (allocating TV programmes to the programme positions) can be performed with the **remote control handset**.

Entering channel numbers directly with the remote control handset

Switching on

- Switch on the TV set with the mains button IO ①.

– Programme position 1 is automatically selected and the display shows **P 1** and the selected TV norm, eg: PAL.

Selecting a programme position

- Select the desired programme position step by step with button ▼ or ▲ (group of buttons [D]), or
- select the programme position required with one of the numbered buttons [B] **1**...**99**.

– For the two-digit programme positions **10** to **99** first enter the tens position - this will flash for about 4 seconds. Enter the units position during this period of time.

- Press button **P/C** [C] .

– The letter **C** (**C** for channel) and a number between **01** and **99** appear in the display.

- If your TV set is connected to a cable TV system and the programmes are received on special channels, then press once again the button **P/C** [C] if you wish to enter such a channel.

– The letter **S** (**S** for special channel) appears in the display.

Entering the channel number

- Enter the required channel number as two digits with the numbered buttons [B] **1**...**0**, eg: for channel 6 the figures **0** and **6**.

– The picture is automatically tuned to best sharpness.

Storing the channel number in the memory

- Press the green button [A 3].

– The indication »Memorize with OK« appears on the screen.

- Press button **OK** of group of buttons [D] .

– The display shows **P** (**P** for programme position).

Station programming with the channel search and the remote control handset

Selecting a programme position

- Select the desired programme position step by step with button (group of buttons [D]) ▼ or ▲ of the remote control handset, or
- select the programme positions **1** to **9** with one of the numbered buttons [B] **1**...**9**.

– For the two-digit programme positions **10** to **99** first enter the tens position - this will flash for about 3 seconds. Enter the units position during this period of time.

- Press button **P/C** [C].

– The letter **C** (**C** for channel) and a channel number between **01** and **99** appear in the display.

Starting the channel search

- Start the channel search with button ▼ or ▲ of the group of buttons [D].

– The channel search explores all TV channels (also all special channels). It stops at each station being received. If the found station is not the desired one, start the station search again.

– The picture is automatically tuned to best sharpness.

Storing the channel number

- Press the green button [A 3].

– The indication »Memorize with OK« appears on the screen.

- Press button **OK** of the group of buttons [D] .

– The letter **P** (**P** for programme) appears in the display.

Picture and sound corrections

- To change the volume, press button ◀ (softer) or button ▶ (louder) of the group of buttons [D] as long as required.
- The modified value can be indicated on a scale on the picture screen.
- For all other picture and sound corrections **first** select the function to be changed with the following buttons.

  [M] ◑ = black and white contrast
  [N] = colour contrast
  [O] TINT = tint correction on NTSC reception
  [P] ☼ = brightness
  [Q] = bass (tone)
  [R] = treble (tone)
  [T] = stereo balance
- Then press button ◀ or ▶ (remote control, group of buttons [D]) to modify the value as desired.
- The modified value can be indicated on a scale on the picture screen.
- It is possible to recall the **basic setting** by pressing button **OK**.
- For changing the basic setting see chapter »Changing the basic settings«.

Stereo broadcasts

If the TV set receives a stereo broadcast, it automatically switches to stereo sound.
- The indication **STEREO** appears in the display.
- If the stereo sound is poor, you can switch to »mono sound« by pressing button "\" – [V] –.

2-channel-sound broadcasts

If you are receiving a 2-channel-sound broadcast, eg: a film with the original sound track on channel 2 and the local language dubbed on channel 1, you can select between the two channels.

- Press button "\" – [V] –.

This individual sound channel selection is also possible during headphone operation.

Stereo expansion/spatial stereo

This function expands the stereo base in the case of stereo broadcasts and improves the sound impression in the case of mono broadcasts.

- Switch this function on and off with button ⟷ – [U].
- A corresponding indication appears on the TV screen.

Muting the TV sound

- Button permits to switch on and off the TV sound.

Clock time

- The clock time indication can be switched on and off with button – [G]
  (for details see chapter »Info-Center/Timer functions«).

Standby

- During television pauses, you can switch your TV set to »standby« by pressing button ⏻ – [L] – (indication: lit dot).
- Approximately 10 minutes after the end of the transmission or in the case of a transmission breakdown, the set automatically switches to »standby«.
- Switch the set on again with one of the numbered buttons [B] **1...0**, button **AV**, or button **HiFi**.

Switching off

- If you do not use the TV set for a longer time, switch it off with the mains button IO ②.

Operation with the Remote Control Handset – Special Functions

The special function on TV operation

Freeze frame

This function permits to »freeze« the picture of the current programme.

- Press button A4.
- Press button A4 or button TV A7 again to cancel this function.

Picture in picture (PIP)

This function permits to »freeze a small picture in the picture« of the current programme.

- Press button PIP F.
- Pressing button TV A7 or button PIP F or selecting another programme terminates this function.

Picture in freeze frame

This function permits to insert into the »freeze frame« a moving small picture of the same programme.

- Press button AUX W »AUX?« will be displayed on the TV screen. During the period of this display, press button PIP F.
- Pressing button TV A7 or selecting another programme terminates this function.

Zoom effect

This function permits to select (move) and enlarge picture details.

- Press button A8.
- Use the cursor buttons ▲ ▼ ◀ ▶ of the group of buttons D to move the enlarged picture detail.
- Pressing the button TV A7 or A8, or selecting another programme terminates this function.

Cinema effect (-Field Mode)

This function permits to improve the picture quality of cinema films (with top and bottom black borders). (Try it with the »test pattern«).

- Press button A5. (A dot appears in the display)
- Pressing button A5 terminates this function.

Indication of nine small pictures (– Multipicture)

This function permits to indicate 9 small pictures of the same programme, 8 of them time-shifted, 1 as freeze frame. The small picture in the right bottom corner shows the »current programme«.

- Press button A9.
- Each further pressure on button A9 updates the 8 displayed freeze frames.
- Pressing button TV – A7 or selecting another programme terminates this function.

Displaying nine programmes (– Tuner scanning)

This function permits to display 9 different programmes as small pictures(only as PIP and without sound), and the associated
station abbreviations on the TV screen.

- Press button A10.
- The small pictures (PIPs) are updated in short intervals one after the other.
- The buttons ▲ ▼ of the group of buttons D permit to advance the PIPs by 9 programmes at a time.
- If you wish to select a certain programme out of this programme offer, enter the number of the desired programme position with the numbered buttons 1...0 ein.
- Pressing button TV A7 or selecting another programme terminates this function.

Stroboscope

Applying the stroboscopic effect makes the movements appear jerkily on the TV screen. (Disco effect)

- Press button AUX W (– »AUX?« – appears in the picture) – and button A4 during this indication.
- Pressing button TV A7 or selecting another programme terminates this function.

Monitoring an AV connection by on-screen indication

This function permits to display a freeze frame which is periodically updated for monitoring an AV source (eg: a video recorder).

- eg: select the AV programme position and then programme position 1.
- Press button AUX. W and then button A5.
- The picture of the external video source (eg: video recorder) is displayed instead of the first programme.
- Pressing button TV A7 terminates this function.

Programming TV stations

TV stations transmit television programmes on different channels, eg: the TV station Dillberg the first programme (ARD) on channel 6.

The received programmes must be »placed« on the programme positions of the TV set.

These adjustments are only required when setting up the TV set for the first time or when the reception conditions have changed (eg: when changing the place of residence or when the set is connected to a cable system at a later date).

In addition to the 99 programme positions, the TV set has the programme position A 1 for the programme (reproduction) from your video recorder, and the programme position A 2 for the reproduction from a camera recorder and 3 further AV position.

The unit is capable to reproduce in colour the programmes from TV stations (also those delivered by satellites, cable TV systems, or video recorders) transmitted according to the colour norms PAL, SECAM and NTSC.

Code	Norm	Tone (MHz)	Application
n 0	CCIR (PAL/SECAM)	5.5 FM	eg: FRG, GDR Austria, Switzerland, Italy
n 0	NTSC (4.43 MHz colour)	5.5 FM	NTSC-video recorder playback with corresponding recording
n 1	FR-L (SECAM)	6,5 AM	France only
n 2	GB-I (PAL)	6 FM	eg: Great Britain, Ireland Hong Kong (BFN)
n 3	OIRT (SECAM/PAL)	6,5 FM	eg: Eastern Bloc States, China
n 4	NTSC (3.58 MHz colour)	4.5 FM	U.S. norm (AFN) NTSC video recorder playback with corresponding recording
n 5	–	–	–
n 6	–	–	–

For this purpose, the unit needs **two** sets of information: the **norm code** (see table) and the **channel number** of the relevant station.

Information about the channel/special channel numbers and the TV norms can be obtained from the post office, your local dealer, or the after-sales service.

TV norms

TV stations of different countries operate with different TV norms. The table shows the different TV norms and countries. If you wish to tune to programmes of these stations, you must also select the relevant TV norm (see above).

Programme position 1 | Norm code »0« | Channel No 49 | Special channel 16 | Programme 15 selected, AV mode possible | Video mode via black Euro-AV socket | Programme position »A 2«: eg: camera recorder operation

Operation with the Controls on the TV Set

TV programmes can be assigned to programme positions
– by **entering the channel numbers**, or
– with the help of the **channel search system.**

The buttons required are located behind the flap.
Push open the flap.

Selecting a programme position

- Select the required porgramme position with button + or – ⑦
– Indication in the display: **P 1** to **P 99** or **A 1** to **A 5**.

Volume

- Press button ◢ ④ and adjust the volume with button + or – ⑦
– Store the new volume value with button **M** ⑪.

Selecting the TV norm code

- Press button **N** ⑤.
– Indication in the display eg: **n 0** (**n** for norm).
- Use button + or – ⑦ to select the required TV norm (code) (see table »TV norms«).
– Indication in the display: **n 0** bis **n 6**.
- Press button **M** ⑪ to store the norm code.
– Indication in the display: **P** (**P** for programme position).

Selecting TV programmes by entering the channel number

Selecting a programme position

- Press button **P/C** ⑧ until the display ③ shows **P** (P for programme position).
– Use button + or – ⑦ to select the programme position, eg: P 1.
- Press button **P/C** ⑧.
– The display shows the letter **C** (**C** for channel) and a random number between 01 and 99.

Entering the channel/special channel number

- Press button + or – ⑦ until the desired channel number - eg: **C34** - appears in the display.
– If you wish to enter special channels, press button **P/C** ⑧ once again (indication **S** for special channel).

Storing the channel/special channel number

- Press button **M** ⑪.
– The letter **P** (**P** for programme position) appears in the display.

Selecting the next programme position

- Use button + or – ⑦ to select the next programme position and repeat the procedure.

Tuning to TV programmes with the automatic channel search system

This method is recommended if you do not know on which channels the desired programmes are broadcasted.

Selecting a programme position

- Press button **P/C** ⑧
– until the display ③ shows **P** (programme position).
- Use button + or – ⑦ to select the programme position.
- Press button **P/C** ⑧.
– The display shows **C** (**C** for channel) and a number between **01** and **99**.

Starting the channel search

- Use button →• ⑨ to select the channel search mode.
- Start the channel search with button + (upwards) or – (downwards) ⑦
– The channel search stops at each station – eg: **34** – being received.
If the found station is not the desired one, start the channel search again until the correct station is found.
– Your TV set searches the TV channels from channel 01 to 99, and then the special channels (an **S** appears in front of the channel number) from S01 to S41.

Storing the channel/special channel number

- Press button **M** ⑪.
– The display shows the letter **P** (**P** for programme position).

Selecting the next programme position

- Use button + or – ⑦ to select the next programme position and repeat the procedure.

Operation with the Controls on the TV Set

Fine tuning the picture sharpness

The TV set automatically tunes to best possible picture sharpness. However, if reception conditions are difficult, it may occasionally be necessary to correct the setting of the picture sharpness as follows:

- **Selecting the fine tuning mode**
- Press button **P/C** ⑧ until the display shows **C** or **S** , then press button **F** ⑩.
- **Correcting the picture sharpness:**
- Use button ⑦ + or – to correct the picture sharpness.
- **Storing the new sharpness setting:**
- Store the new setting with button **M** ⑪.

Selecting a programme position for external units

Each programme position can be adjusted for playback from an external unit (eg: a video recorder with the switching voltage at PIN 8 of the EURO-AV sockets) connected to the black EURO-AV socket.

For example, you are presently receiving three TV programmes and wish to reserve programme position 4 for your video recorder.

- **Selecting programme position 4**
- Press button ⑦ + until **P 4** appears in the display.
- **Activating the programme position for reservation**
- Press button ⊖ ⑥.
- A dot lights up behind the letter **P** in the display.
- **Storing the programme position**
- Press button **M** ⑪.

Changing the basic settings

In the factory, the picture and sound have been set to optimum values. If you wish, you can change these basic settings. For example, if you are watching TV mostly from a greater distance, you can set the volume so that it is **permanently** louder.

- **Changing the volume setting**
- Select the volume function with button ◢ ④ on the set and then press button ⑦ – (softer) or + (louder) as long as required, or
- press button ◀ (softer) or ▶ (louder) of the group of buttons [D] on the remote control correspondingly.
- The modified value can be indicated in a scale on the TV screen.

- **Storing the modified value**
  If you wish to **permanently** change a setting – no matter whether on the TV set or with the remote control handset – the new value **must** be stored in the memory.
- Press button M ⑪ on the TV set, or
- press the green button [A 3] and then the button **OK** on the remote control handset.

Changing other settings than the volume

- Using the following buttons on the remote control handset, **first** select the function you wish to chnage.
  - [M] ◑ = black and white contrast
  - [N] ◕ = colour contrast
  - [P] ☼ = brightness
  - [Q] 𝄢 = bass
  - [R] 𝄞 = treble
  - [T] ◣◢ = stereo balance
  - [O] TINT = colour correction on NTSC reception
- The use button ◀ or ▶ (remote control handset, group of buttons [D]) to change the preselected setting.
- The modified value can be indicated in a scale on the TV screen.

- **Storing the modified value**
- On the remote control handset, first press the green button [A 3] and then
- button OK (group of buttons [D]).

The changed values are thus saved and will be recovered even when the set is switched off and on again.

Teletext Operation

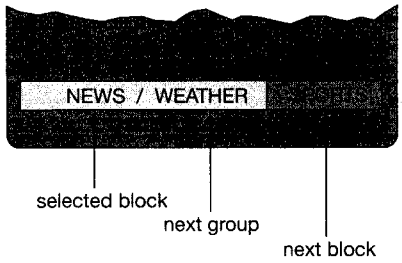
Teletext (Videotext) is a cost-free service of the TV stations that is broadcast along with the TV signal and made visible on the TV screen in the form of texts, graphical representations, and subtitles.
By means of information pages and dialogue lines, Teletext operation is made very easy. The indications in the dialogue lines denote the relevant functions and the allocated buttons to use.

Quick-TOP-Videotext

TOP (**T**able **O**f **P**ages) is a new method for quick and easy selection of Teletext pages.

Using TOP you can select Teletext pages without knowing the page numbers. This is possible since all Teletext pages are transmitted as blocks of subject groups – briefly called blocks – as if they were ordered in a »filing box«.
For example, the latest news are grouped in the block »News«. Further blocks are the blocks »Sport«, »TV Guide« and »Service«. On the other hand, the blocks again are subdivided into several groups, eg: the block »News« into the groups politics, economics, culture, etc. Within the groups you then will find the normal Teletext pages.

With the help of the **on-screen users guide**, Teletext operation is made very simple and foolproof. A comment line (status line) on coloured background is displayed on the bottom edge of the picture. The shown colours are the same as the colours of the relevant buttons on the remote control handset. The yellow field denotes the selected block (subject groups) and the following group. The blue field denotes the next block.



The blue button on the remote control handset is used to proceed from block to block – the yellow button to proceed from group to groop, and the green button to proceed to the next page. The red button returns you to the overview page of the group or block.

In this way, TOP leads you quickly and surely to your goal – the desired Teletext page. A 32-pages memory with optimum storage utilization provides for essentially reduced access times.

Teletext service without TOP

When Teletext is transmitted without the TOP facility, the decoder uses the received Teletext pages to compose its own Table of Pages, simulating in this way the TOP mode.

When switching to Teletext mode, you can see from the Teletext page whether the TV station is broadcasting »only« Teletext or whether you are receiving the »TOP« service.

If a **yellow** and a **blue** text field appear on the bottom of the text page, this indicates that the TOP mode is currently available.

If a **red**, a **green**, a **yellow**, and a **blue colour bar filled with page numbers** appear, then TOP is not available on the transmission.

For Teletext operation, the cover concealing the Teletext buttons on the remote control handset must be pushed to the top.

Note

If the aerial signal is poor, eg: noisy, then it may happen that the Teletext pages are not correctly reproduced. If fine tuning on the TV set brings no improvement, we recommend you to let check your aerial system by a specialist.

Top-Text Mode

What you should know

⚠ • For the »Top« Teletext mode, additional information is required from the TV station. . – For this reason, after having switched on the TV set or after having changed the programme, please wait some moments until the GRUNDIG Quick-Top decoder has read the data into its memory and the complete information is at your disposal.

• This read-in period is signalled on the picture screen by the indication »Top Organisation... «.

⚠ • By pressing the TV button – A7 – you can immediately return from each operating mode to normal TV mode.

⚠ • Please always observe the displayed **users guide** with the dialogue lines on the bottom edge of the picture screen.

⚠ • The cursor buttons – D – on the remote control handset permit to select the functions denoted by the users guide, and button OK is used to activate them if desired.

Switching on Teletext

• Press button ▤ A6 on the remote control handset.
– The overview (contents) page 100 or the Teletext page viewed last will appear.

Top mode

A **yellow** (white, if no further groups are available) and a **blue text field** are displayed at the bottom of the picture. Correspondingly coloured buttons can be found on the remote control handset.

• Use the blue button A5 on the remote control to proceed from block to block.

• Use the yellow button A4 of the remote control handset to proceed to the next group. After the last group of the selected block you arrive automatically at the next block (overflow).

• The green button A3 of the remote control handset permits to proceed to the next available page with overflow to the next group of pages.
The red button A2 of the remote control handset returns you to the corresponding overview (contents) page.

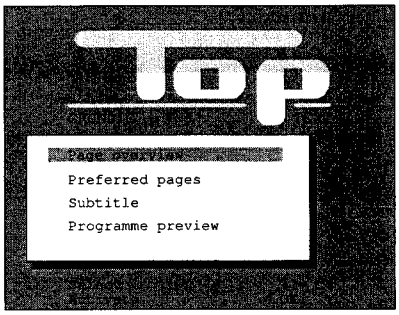
• To switch back to the last viewed Teletext page, press button ↰ – V on the remote control handset.

Teletext without Top

A **red**, a **green**, a **yellow, and a blue colour bar** with **page numbers** are displayed at the bottom of the picture.
In this case, the blue button is used to proceed to the next available hundreds page, the yellow button to proceed to the next available tens page, and the green button to proceed to the next available normal page.
The red button returns you to the corresponding tens or hundreds page, respectively.

Menu page »GRUNDIG Top-Text«

- Press button [A1] of the remote control handset.
- The GRUNDIG Top-Text menu page appears.



⚠ Please observe the **users guide** on the bottom edge of the picture screen, showing you the way to the desired offer.

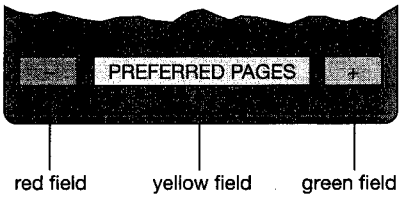
Page overview

- This menu item gives you an overview about the offer of the currently transmitted block and group pages of the relevant Teletext service. On Teletext without Top facility, the numbers of the transmitted pages will be indicated.
- Press button **OK**.
- The page overview appears.
- With the cursor buttons [D] of the remote control handset you now can select any of the listed blocks and groups and activate them with the
- **button OK**.
  See the **users guide** on the picture screen.

Preferred pages

(Not possible on Teletext without Top)

- This menu choice gives you an overview about the pages which are considered especially important by the Teletext editorial office.
- Select this menu item in the same way as the page overview.
- On the bottom edge of the Teletext page the indication + Preferred page – is displayed.



- Use the green button [A3] of the remote control handset to proceed from one preferred page to the other, and
- use the red button [A2] to return to the preceding pages.

Subtitles

- If subtitles are tansmitted along with the currently running TV programme, these can be called up via the menu item »Subtitles«.
- For selecting and activating this menu item see the on-screen **users guide**.

Programme preview

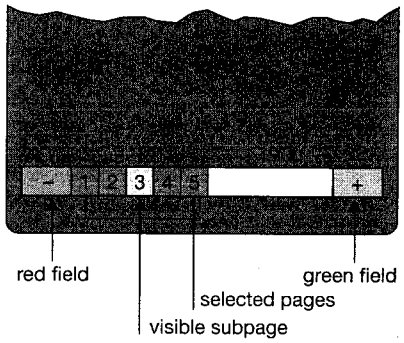
- This menu item diretly selects the programme preview of the relevant TV station.
- For selecting and activating this menu item see the on-screen **users guide**.

Multiple pages

Page numbers may contain several subpages which are automatically »paged« in a certain cycle by the TV station. Subpages can be recognized by the indication of the symbol »»« in the bottom right corner or by the indication of eg: 2/4 below the clock time. 2/4 means that you are viewing the second of 4 subpages.

Reading in mutliple pages

– Select a multiple page with subpages.
• Press button 🗐 [A10] .
– At first, the page number of the currently visible subpage (violet) is displayed on a white strip between the two colour fields red – and green +.
– Then the remaining subpages will be read in and their numbers will be indicated (blue).



• Use the green button [A3] to proceed from one subpage to the other, and
• use the red button [A2] to return to the preceding subpages.
– The colour of the shown page number changes from blue to violet.

Direct selection of a subpage

– Select a page with subpages.
• Press button 🗐 [A10] once again.
– The header (info) line shows the number of the selected multiple page, eg: P 155/----.
• Use the numbered buttons [B] to enter the desired subpage as four digits, eg: for the second subpage the sequence 0002.
– The desired subpage will be searched and displayed.

Enlarging the character size

• Pressing the button ⊞ repeatedly doubles the character size in the following sequence:
– the top half of the page,
– the bottom half of the page,
– full page in normal height.

Special feature: Current programme/Subtitle

(only possible on Teletext transmissions)

• When pressing the TV button [A7] on the remote control handset during TV mode, the indications **Current programme** and **Subtitle** are displayed on a yellow and blue colour field.
• Press the yellow button [A4].
– The title of the current programme with start and stop times will be displayed.
• Press the blue button [A5].
– TV subtitles will be displayed.
• Press the TV button [A7],
– the function is cancelled.

Watching TV during Teletext operation

Updating a page

The Teletext editorial service updates certain Teletext pages. For example
– exchange rates are brought to the latest level,
– sports messages are added, or
– the latest newsflash is transmitted.

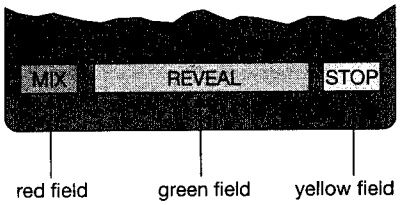
Assuming that you wish to watch TV and yet still wish to be informed about the latest news, then

• first select the relevant page, and then
• press button ⊠ [A9] on the remote control handset.
– You will see the television picture with the Teletext symbol displayed at the top edge of the screen.
– As soon as the message **New info.** appears in the header (info) line, then
• press button ⊠.
– The Teletext page will appear with **updated contents.**

You may use this function also for **bridging waiting periods** whilst the Top-Videotext decoder is searching a page or reading in subpages of a multiple page. When the page is found or read in, the message »**Ready**« is displayed in the header line.

Mix – Reveal – Stop

- Press button AUX [W] of the remote control handset.
- Indications on the TV screen:
  MIX in the **red** field,
  REVEAL in the **green** field, and
  STOP in the **yellow** field.



Mix: Displaying the TV picture behind the text

- Press the red button [A 2],
- the Teletext is displayed on the TV picture
- Press button ▤ [A 6],
- the »Mix« function is cancelled.

ANSWER – Revealing hidden text on certain Teletext pages, eg: quiz answers or the VPS times for programming a video recorder.

- Press the green button [A 3],
- the hidden information is displayed.
- Press button ▤ [A 6],
- the »Answer« function is cancelled.

STOP: Stopping reading in pages

- Press the yellow button [A 4],
- **Stop** is displayed **at the top** of the picture.
- The contents of the displayed page are »held«, not updated any more, and no further subpages will be selected.
- Press button ▤ [A 6],
- the function »Stop« is cancelled.

Special feature: Page catching,

i.e. selecting pages without the need of entering the page number. You can directly select the desired Teletext pages in the overview pages (pages with three-digit page nubers) using the cursor buttons. This function spares yourself typing the three-digit page numbers.

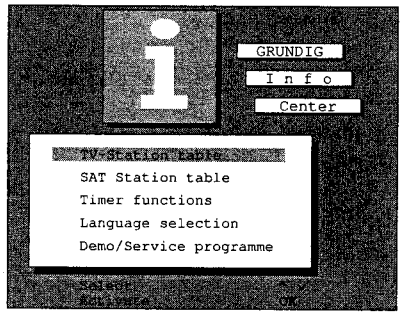
- Press button ▼ or ▲ of the group of buttons [D] on the remote control handset.
- The indication **»Page-Catching«** will be displayed at the top edge of the TV picture.
- A lit rectangle (Cursor) is flashing next to the first or last page number of the overview page.
- Use the buttons ▼ or ▲ to move the cursor to the desired page number.
- Press button OK.
- The page is displayed on the TV screen.

Alarm Page

If a page is declared to be an **Alarm Page** by a TV station, this can be selected to appear at **preset time** on the TV screen.

- Select the alarm page.
- Press button ▤ – [A 6] on the remote control handset.
- The page number/... of the alarm page appears in the **Info line**.
- Enter the alarm time instead of the subpage number with the numbered buttons [B] of the remote control handset.
- Use button ⊠ – [A 9] of the remote control handset to switch the TV set to the **Present mode**.
- The **symbol** ▤ appears in the top left corner of the screen.
- if the set alarm time and the real time coincide, the alarm page will appear on the screen.

- Press button [i] [S] of the remote control handset.
- The menu page »**GRUNDIG Info-Center**« appears. This page shows you further special features of your Grundig Teletext decoder:



1. The menu item **TV-Station table**

for entering and storing programmes, channels/special channels, and TV stations with their abbreviations as well as the TV norm code.

2. The menu item **SAT Station table**

for entering and storing programmes and station abbreviations of satellite stations.

3. The menu item **Timer functions**

for entering and storing a device switch-off time (Sleep Timer), a reminder time, and a code number for an electronic lock (Security System) disabling all functions of the TV set.

4. The menu item **Language selection**

for several national languages. Permits to select the language in which you wish the users guide with the dialogue lines to be displayed.

5. The menu item **Demo/Service programme with System Setup**

for creating individual picture displays including a Demo programme.

1. The TV-Station table

Programming the TV programme positions

With the help of the TV-station table and the remote control handset, all programme positions of the TV set can be programmed with any TV station and a station ident (abbreviation).
In this way, the station table of this Teletext decoder makes it possible to call up at any time all »entries« you have ever made.

- Select the »GRUNDIG Info-Center« menu with button [i].
- Activate the menu item »TV-Station table« according to the on-screen **users guide**.
- Follow the on-screen **users guide**. Observe the dialogue lines!
- The cursor buttons [D] permit to programme up to 99 TV programme positions and 5 AV programme positions.
- Press button [i] to return to the overview menu »GRUNDIG Info-Center«.

2. The SAT Station table

This table permits to programme 99 TV programme positions with station idents (abbreviations) of satellite programmes.

To make satellite reception possible, a GRUNDIG Satellite receiver must be connected to the black EURO-AV socket.

- Press button [i] to select the »GRUNDIG Info-Center«.
- Select and activate the menu item »SAT Station table « according to the on-screen **users guide**.
- Follow the on-screen **users guide**. Observe the dialogue lines!
- Use the cursor buttons [D] to programme in this way up to 99 SAT programme positions.
- Press button [i] to return to the »GRUNDIG Info-Center« menu.

3. Timer functions

The first function »Sleep Timer«

permits to programme the TV receiver so that it automatically switches off at a preselected time.

- Use button [i] to select the »GRUNDIG Info-Center«.
- Select and activate the menu item »Timer functions« according to the on-screen **users guide**.
- Sleep Timer: Enter the switch-off time following the on-screen **users guide**.

– When activating the Sleep Timer function, the current time plus 10 minutes is preset.

- Using the buttons ▼ and ▲ you can change the preset time in steps of 10 minutes. It is also possible to enter the clock time with the numbered buttons 1...0 – [B] of the remote control handset.
- Go on following the on-screen **users guide**. Observe the dialogue lines!
- Use the TV button [A7] to switch to TV mode.

– When the programmed time has elapsed, the TV set automatically switches to **standby**.

The second function »Reminder Time«

enables you to determine the time at which the reminder time will be displayed on the TV screen.

- Select the function with the curosr button ▼ and
- enter the reminder time – see also **»Sleep Timer«** and the relevant on-screen **users guide**.
- Use the TV button [A7] to return to TV mode.

– At the programmed time, the reminder time will automatically be displayed on the TV screen.
– The reminder time is flashing.

- Press the TV button [A7],

– the reminder time is removed from the screen; however, it remains stored in the memory and will remind you the next day at the same time.

- To erase the reminder time from the memory, see the **users guide** in the **»Timer Functions« menu!**

The third function »Security System«

(electronic combination lock) permits to programme the unit so that it is automatically switched off at a preselected time and cannot be used again without permission.

Programming the electronic lock

- Select the Security System menu item with the cursor button ▼ – see also **»Sleep Timer«** and the relevant on-screen **users guide**.
- Enter a 5-digit code number using the buttons 1...0 [B] of the remote control handset.

⚠ Remember your personal code number!

If you should forget or mislay your personal number, your specialized delaer will be able to assist you.

- Programme the switch-off time as under »Sleep Timer«.
- Proceed following the on-screen **users guide**. Observe the dialogue lines!
- Use the TV button [A7] to return to TV mode.

Cancelling the electronic lock

If the locked TV set is switched on, the indication »Programme locked« will flash.

- Enter your personal code number with the buttons [B],

– the TV set is automatically switched to TV operation.

⚠ The Teletext decoder is equipped with an electronic clock which is automatically put into operation and set to the correct time as soon as a station with Teletext is selected after switching on. – When this is done, the clock time will be available also with stations without Teletext facility.

If you call up timer functions before having selected a Teletext programme, the functions »Sleep Timer« and »Security System« can be used by entering the time in minutes steps.

4. Language selection

For the dialogue with your TV set you have the possibility to select between several languages. The users guide will then be displayed in the selected national language. In the factory, the unit is preset to the German language. If you wish to change this setting, then proceed as follows:

- Call up the »GRUNDIG Info-Center« with button [i].
- Select and activate the menu item »Language selection« according to the on-screen **users guide**.
- Select the desired language.

– Proceed following the on-screen **users guide**. Observe the dialogue lines!

- To return to the »GRUNDIG Info-Center« menu, press button [i].

5. Demo/Service programme with System Setup

The Demo/Service programme with the subprogramme System-Setup permits, for example, to enter the programme position as 1 or 2 digits (allocation of programme positions), and to call up further functions as well as a Demo/Service programme, which represents an optimum help for the retailer.

Programme selection mode

- Press button [i] [S] of the remote control handset.

– The »GRUNDIG Info-Center« menu will be displayed.

- Repeatedly press the cursor button ▼ of the group of buttons [D] until

– the »Demo/Service programme« menu item is displayed on red background.

- Press button [OK] of the group of buttons [D].

– The »System Setup« menu appears.
– The menu item »Programme mode« is displayed on red background.

If you need only the programme positions 1 to 9 of the 99 available programme positions, you can restrict the selection of programme positions, eg:

- with cursor button ◀▶ Single digit = programme positions 1 to 9, or
  Two digits = programme positions 1 to 99.

...For selecting and activating the programme mode, and to return to the »Demo/Service programme« menu, see the on-screen users guide (dialogue line).

Channel identification

Select the line »System Setup« in the menu »Demo/Service programme« with button [OK].

- Select the function »Channel ident« with the button ▼ of the group of buttons [D] on the remote control handset.

– The line is displayed on red background.
– Use button ◀ ▶ of the group of buttons [D] to select whether the channel ident display is to be short-time, continuous, or switched off.

...see the on-screen users guide (dialogue line)

Picture/sound options

Select the line »System Setup« in the menu »Demo/Service programme« with the button [OK].

- Select the function »Picture/sound options« with the button ▼ of the group of buttons [D] on the remote control handset.

– The line is displayed on red background.
– Use button ◀ ▶ of the group of buttons [D] to select whether the display of the picture/sound options (scale) on the screen shall be large, small, or switched off.

...see the on-screen users guide (dialogue line).

Sound signal

Select the line »System Setup« in the menu »Demo/Service programme« using button [OK].

- Select the function »Sound signal« with the button ▼ of the group of buttons [D] on the remote control handset.

– The line is displayed on red background.
– Use button ◀▶ of the group of buttons [D] to select whether the sound signal is to be »controlled« via the remote control handset of the TV set or adjusted »linear« on the hifi unit.

...see the on-screen users guide (dialogue line)

PIP position

Select the line »System Setup« in the menu »Demo/Service programme« using the button OK of the group of buttons D.

- Select the function »PIP position« with the button ◀ of the group of buttons D on the remote control handset.

– The line will be displayed on red background.
– Using the button ◀▶ of the group of buttons D, select whether the displayed PIP (see PIP functions) is to be positioned in the top left, bottom left, top right, or top left corner of the screen.

...see the on-screen users guide (dialogue line)

PIP frame

Select the line »System Setup« in the menu »Demo/Service programme« using the button OK of the group of buttons D.

- Select the function »PIP frame« using the button ▼ of the group of buttons D on the remote control handset.

– The line is displayed on red background.
– Use button ◀▶ of the group of buttons D to select whether the PIP frame displayed on the screen is »on« or »off«.

...see the on-screen users guide (dialogue line).

Frame brightness

Select the line »System Setup« in the menu »Demo/Service programme« using the button OK – D.

- Select the function »Frame brightness« using the button ▼ of the group of buttons D on the remote control handset.

– The line is displayed on red background.
– Using the button ◀▶ of the group of buttons D, select whether the PIP frame (on PIP functions) is to be displayed in black, grey or white.

...see the on-screen users guide (dialogue line)

Service/Demo-mode – Only for the retailer

Select the line »System Setup« in the menu »Demo/Service programme« with the button OK of the group of buttons D.

- Select the function »Service/Demo-mode« with the button **AUX** W of the remote control handset (see on-screen users guide – dialogue line).

– The line »Demo programme« is displayed on red background.

- Start the Demo programme with button OK.
  The GRUNDIG-IDTV-DEMO facility automatically displays a choice of functions on the TV screen.

Attention!

The Demo programme can only be stopped by switching off the TV receiver with the mains switch IO ①.

The Service-mode is intended only for the retailer and protected by a code number.

Note: The DEMO programme for the retailer can only be stopped when the + button is pressed together with the mains switch when switching on the unit.

...with a camera recorder

Connection:

- Connect the camera recorder or CD video-player with a Cinch cable to the Cinch sockets ⑬/⑭.
  Socket VIDEO ⑬ = Video (picture) input
  Socket AUDIO L ⑭ = Audio (sound) input, LH channe
  Socket AUDIO R ⑭ = Audio (sound) input, RH channel

⚠ With mono camera recorders, connect the audio cable to the socket AUDIO L ⑭.

Operation:

- Press button **AV** of the group of buttons [B] on the remote control handset until **A –** appears in the display ④.
- Use the numbered buttons 1...5 to enter the appropriate AV position (see TV-stations table/AV-positions).
- Start playback from the camera recorder.
- The playback from the camera recorder is visible on the picture screen.

...with an S-VHS video- or S-VHS camera recorder

When connecting an S-VHS video- or S-VHS camera recorder to the S-VIDEO socket ⑫, the picture quality will further be improved. On this connection, the sound signal is separately passed via the two Cinch sockets ⑭.

The S-VIDEO socket ⑫ must remain free when the EURO-AV socket ㉓ is used. Only the S-VIDEO- or the EURO-AV-Buchse ㉒/㉓ can be occupied at the same time.

⚠ With mono units, connect the audio cable to the socket AUDIO L ⑭L.

Operation:

- Press button AV until **A –** appears in the display.
- Use the numbered buttons 1...5 to select the appropriate AV position (see TV-stations table).
- Start playback from the S-VHS camera- or S-VHS video recorder.
- The playback is visible on the picture screen.

... with a Satellite receiver

Connection:

- Connect the Satellite receiver with an appropriate cable to the **black EURO-AV socket** ㉒.

Operation:

- Select the programme position **A1** with button **AV** of the group of buttons [B] on the remote control handset.
- Press and hold down button **SAT** [J] and select the desired programme position for the satellite receiver with the numbered buttons [B] **1** ...**0**.

... with additional loudspeakers (boxes)

Connection and operation:

- Connect the additional loudspeakers (4 Ω impedance) to the sockets 🔈 ⑯ on the rear of the unit (R = right, L = left).
- The loudspeakers of the TV set are automatically disconnected.

Loudspeaker selector ⑱

for operation with external loudspeaker boxes.

- Switch pressed down: the external boxes act as broad-band speakers.
- Switch not pressed down: the external boxes act as bass speakers.

⚠ The selector switch must only be pressed down when operating with **external speaker boxes**, as otherwise the sound will be adulterated.

... with a stereo headphone

Connection:

- Push open the cover on the front of the set and insert the headphone plug (6.3 mm ø Jack plug) into the socket ⑮.

Operation:

- Press button **AUX** [W], then adjust the volume with the button ◀ or ▶.

– The changed volume value can be displayed on a scale on the TV screen.

... with hifi equipment

Connection:

- Connect the sockets of the hifi unit with a Cinch cable to the socket **L/R** ⑰ (L = LH channel, R = RH channel).

Operation:

- Switch on the hifi unit and set to normal volume.
- Press button **HiFi** – [E] on the remote control handset.

– The letter **H** appears in the display, the loudspeakers of the TV set are switched off.

- Volume, stereo balance, bass, and treble can be adjusted with the **remote control handset**.

Linear (constant) sound signal with respect to the hifi unit

This is indicated by the letter »h« in the display ④.

Volume, stereo balance, bass, and treble can be adjusted only on the **hifi unit**.

For details refer to »GRUNDIG Info-Center«, chapter »Display-Manager/Sound signal«.

... with a video recorder

Connection

Connect the video recorder with an AV cable to the **black** ㉓ **or blue** ㉒ EURO-AV socket, or with an aerial cable (75 ohm) to the **aerial socket** ㉑.

Operation

- Video recorder connected to **black Euro-AV socket** ㉓.

– **Press once button AV** of group of buttons [B] on the remote control handset.

– The programme position **A** – appears in the display.
Use the buttons 1...5 (see TV-Stations table/AV-positions) of the group of buttons [B] to select the appropriate AV connection.
The picture/sound signal of the video recorder connected to the **black EURO-AV socket** can also be switched to any other programme position (see chapter »Programme positions for external units«).
Start playback from the video recorder.

- Video recorder connected to the **blue Euro-AV socket** ㉑.

– Press twice button AV of the group of buttons [B] on the remote control handset.

– The programme position **A** – appears in the display.
Use the buttons 1...5 (see TV-Stations table/AV-positions) of the group of buttons [B] to select the appropriate AV connection.
Start playback from the video recorder.

- Video recorder connected to the **aerial socket** ㉑.
Programme the playback channel specified for your video recorder(between 30 and 40) on any desired programme position (eg: P 16) (see chapter »Programming TV stations by entering the channel number«). Normally, this transmitting channel is indicated in the operating instructions of the video recorder.
If you should not know the transmitting channel, start playback from the video recorder and search the channel with the automatic channel search system on the TV set (see chapter »Programming TV stations using the channel search system«).
Remember the programme position for later video playback.
The picture sharpness of the video playback can be improved if required (see chapter »Fine tuning the picture sharpness«).

Operation

- Select the TV Station table in the Info-Centre as described in the user's guide.
- Select the required station position.
- Enter the desired playback channel of the VCR.
- At the station abbreviation, enter AV.
- Continue with user's guide.

Copying video recordings via the TV receiver

It is possible to copy tapes from one video recorder to another video recorder, or from one camera recorder to a video recorder, or from one S-VHS recorder to another S-VHS recorder.
Gehen Sie wie folgt vor:

Connection:

- Connect the playback video recorder or camera recorder to the **Euro-AV socket** ㉒, and a camera recorder to the Cinch sockets **VIDEO/AUDIO**, or an S-VHS video recorder to the S-Video socket.

Operation:

- Connect the recording recorder to the free Euro-AV socket.
- Use button **AV** to select the input socket A –.
  Use the buttons 1...5 (see TV-Stations table/AV-positions) of the group of buttons [B] to select the appropriate AV connection. For example:
  A1 bottom Euro-AV socket (black)
  A2 top Euro-AV socket (blue)
  A3 S-Video socket
  A4 (up to 5 AV positions)
- Press button **AUX**, and then button **AV**.

– the indication »**Copy**« is displayed on the screen. From now on you can watch any desired TV programme without disturbing the recording.

If you wish to cancel the »Copy« function, press button **AUX** and then button **AV**.

– The indication »**Copy**« disappears from the screen.

Picture and sound corrections on video playback

If there are discrepancies in picture and sound between the TV picture you are accustomed to and the video playback (eg: too loud sound or too much colour), you can correct these values and store them in memory with the help of the remote control handset. (This adjustment does not change the basic settings of the TV picture).

- **Firstly** select the function you wish to correct using the following buttons:
  [N] = colour contrast
  [P] = brightness
  [M] = black and white contrast
  [T] = stereo balance
  [Q] = bass (tone)
  [R] = treble (tone)
- Then use button ◀ **or** ▶ of the group of buttons [D] on the remote control handset to correct the relevant value.
  Change the volume directly with button ▶ (louder) **or** button ◀ (softer) of the group of buttons [D], or with the buttons ⑪ on the TV set after preselection with button ⑩.
- Storing the modified value:
  On the remote control handset

– Press the green button [A3] and then
– button **OK** of the group of buttons [D], or on the TV set
– press button **M** ⑫.

Remote control of a video recorder

You can also use the remote control handset of this TV set to remotely control a **video recorder**. Your retailer can tell you which video recorders are appropriate for this.

- Press and hold down button **VIDEO**.
  This switches the remote control handset in video mode.
  Now press the relevant function button.

Please refer to the following listing to learn which functions can be remotely controlled.

(numbered button 1) = reverse picture search
(numbered button 2) = forward picture search
● (button ◑) = recording start
■ (button ◒) = stop
◀◀ (numbered button 7) = fast rewind
▶▶ (numbered button 8) = fast forward wind
II (button **TINT**) = pause
▶ (button ☼) = playback start
3 (numbered button 3) = slow motion
4 (numbered button 4) = programme position –
5 (numbered button 5) = programme position +

Specification

Mains voltage:

220–240 V~ 50/60 Hz
(control range of the mains section 190...264 V)

Power consumption:

ca. 205 Wh

Channel coverage:

channels 01 ... 99
special channels S 01 ... S 41

Sound output:

2 × 60 W music power (Active System)

Service Hint for the Retailer:

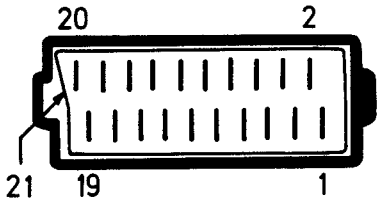
The mains cable of this TV set is a plug-in cable. Order replacement cables at one of our after-sales service offices.
Mains cable with round plug [• •] at the unit side:
Order No. 8290-991-275.

This equipment meets the international safety and interference regulations.
If your unit malfunctions, it is essential that you contact your local dealer.
Under no circumstances should you open the set yourself. The manufacturer accepts no responsibility for damage which occurs under such circumstances.

Pin Connections of the EURO-AV Socket ㉓

If you wish to connect peripheral equipment (eg: computer, amplifier) to your TV set, your dealer will be able to make the correct standard connections using the table below:

Pin		Signal
1	=	Audio output, RH
2	=	Audio input, RH
3	=	Audio output, LH
4	=	Audio chassis return
5	=	Blue chassis return
6	=	Audio input, LH
7	=	RGB blue input
8	=	Switching voltage
9	=	Green chassis return
10	=	–
11	=	RGB green input
12	=	–
13	=	Red chassis return
14	=	–
15	=	RGB red input
16	=	RGB switching voltage
17	=	Video chassis return
18	=	RGB switching voltage, chassis return
19	=	Video output
20	=	Video input
21	=	Screening/chassis return



Subject to alteration
E. and O.E.